

Global Tropics Hazards And Benefits Outlook

4/27/2021

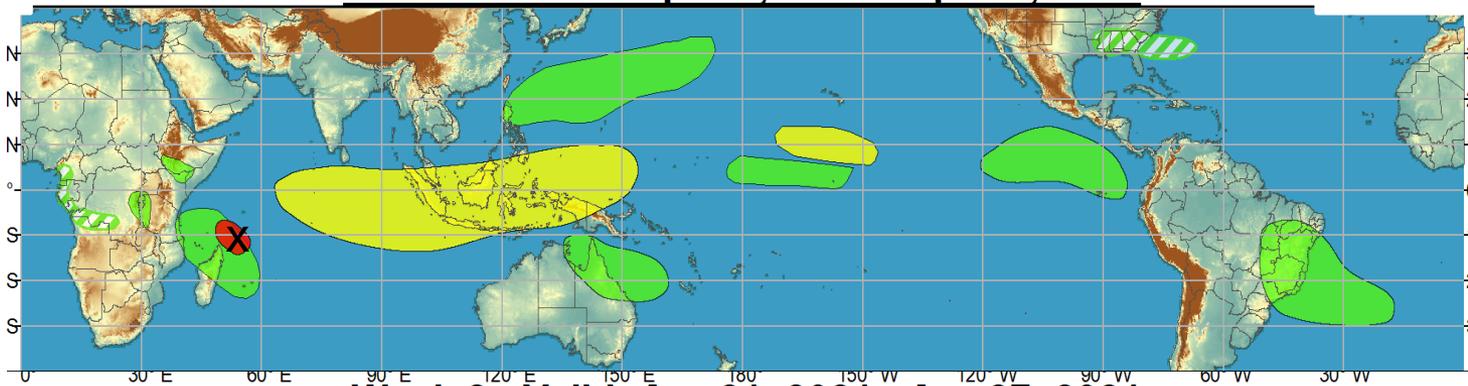
Adam Allgood

Outline

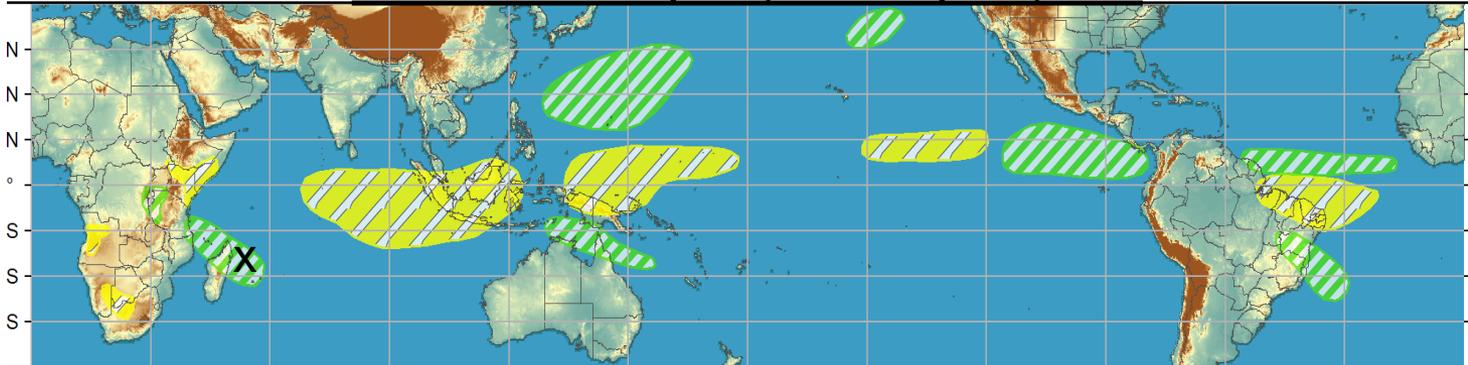
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

Week 1 - Valid: Apr 21, 2021 - Apr 27, 2021

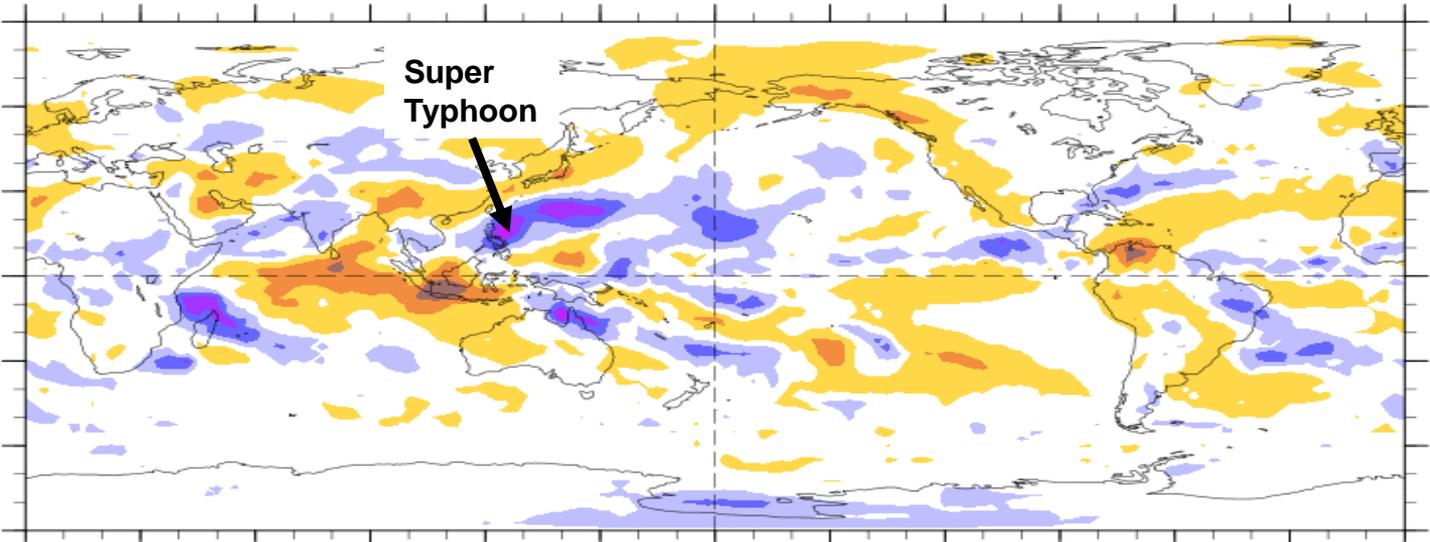


Week 2 - Valid: Apr 21, 2021 - Apr 27, 2021



7-Day Average OLR Anomaly

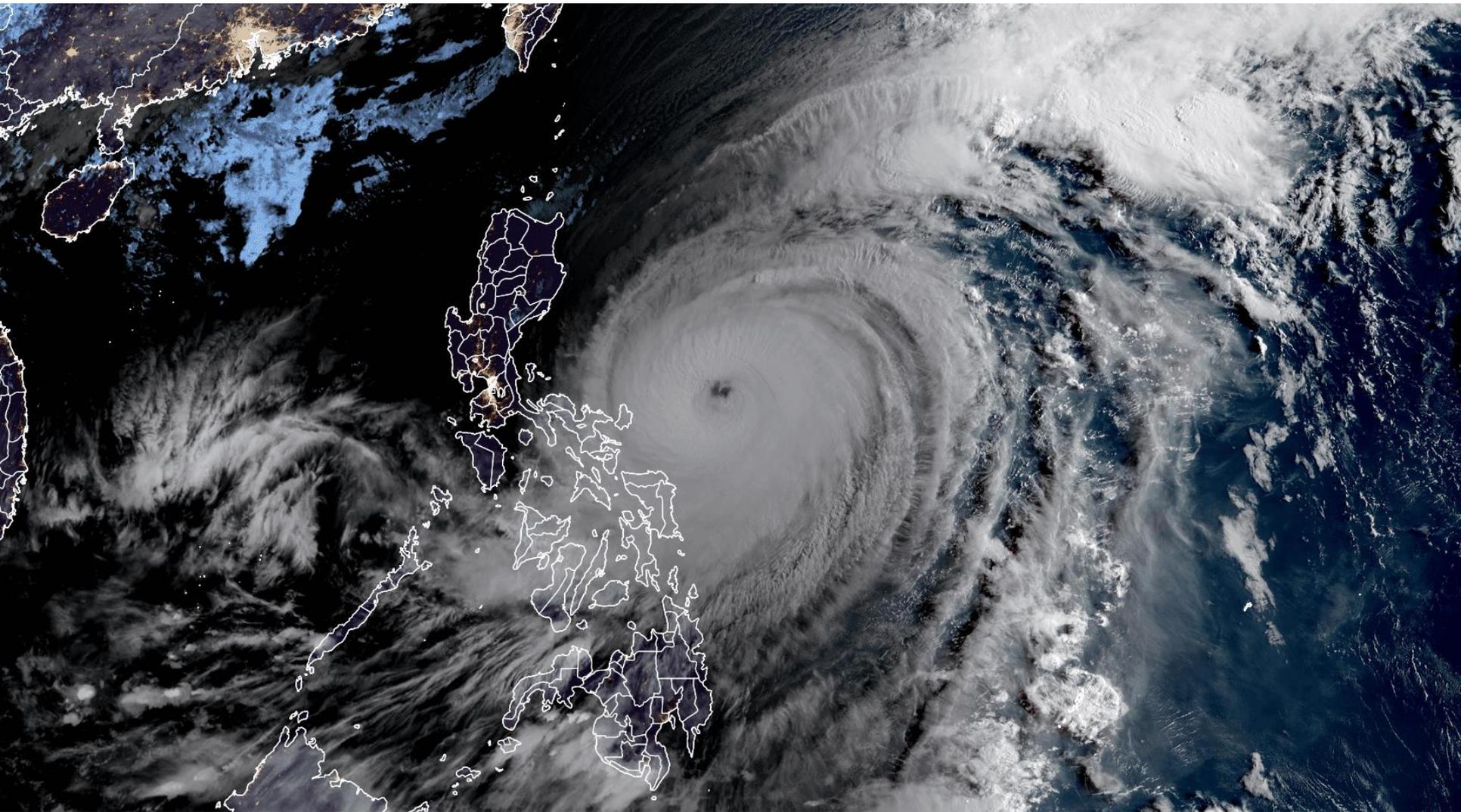
2021/04/19 - 2021/04/25



Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Super Typhoon Surigae



- Sustained winds peaked at 190mph
- Strongest tropical cyclone on record during April for the Northern Hemisphere
- The MJO likely contributed to the development of this tropical cyclone

Synopsis of Climate Modes

ENSO: (April 8, 2021 Update)

next update on May 13, 2021

- ENSO Alert System Status: [La Niña Advisory](#)
- A transition from La Niña to ENSO-Neutral is likely in the next month or so, with an 80% chance of ENSO-neutral during May-July 2021.

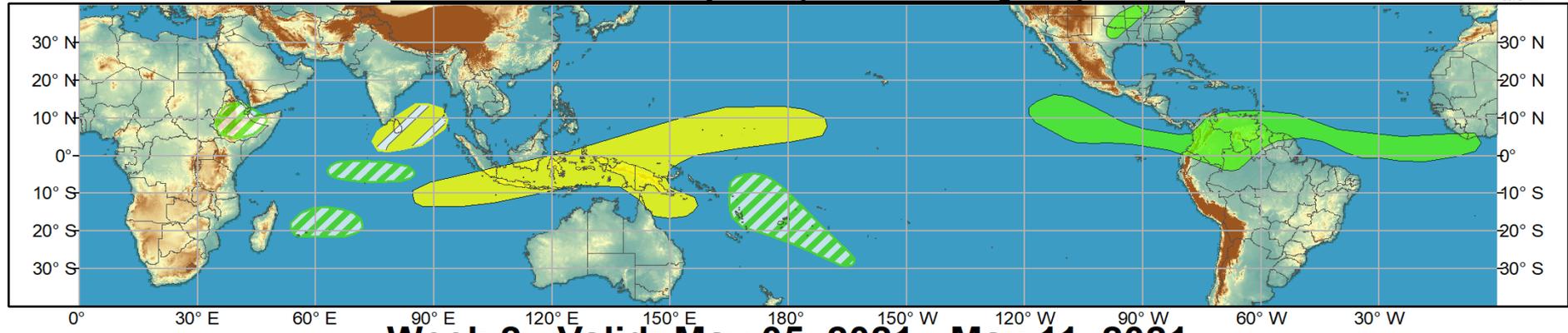
MJO and other subseasonal tropical variability:

- After a slight disruption of the MJO during mid-April, the MJO became more coherent and resumed its eastward propagation from Apr 24-26.
- Dynamical models are in good agreement that the MJO will continue this eastward propagation to the Indian Ocean during early May.
- This MJO evolution is expected to provide more favorable conditions for tropical cyclone development over the Southern Arabian Sea during week-2.

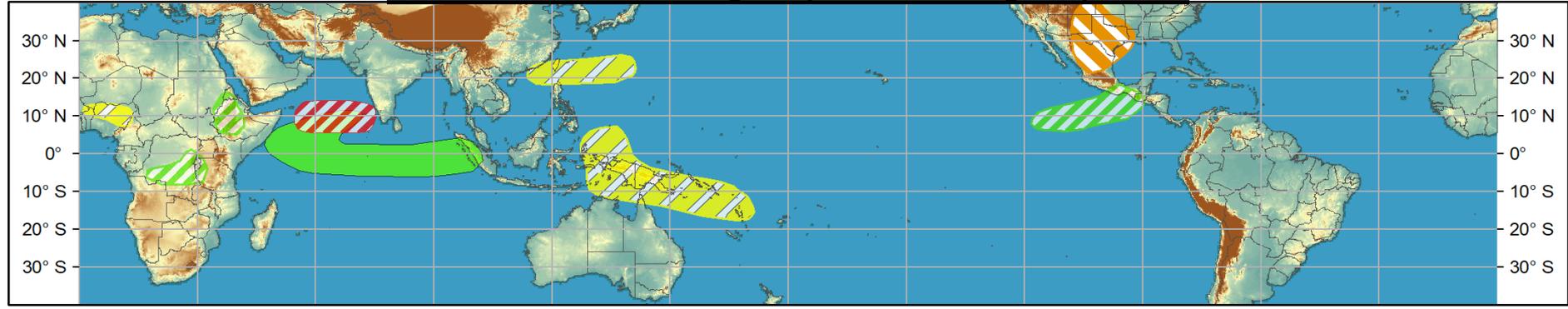


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Apr 28, 2021 - May 04, 2021



Week 2 - Valid: May 05, 2021 - May 11, 2021



Produced: 04/27/2021
Forecaster: Pugh

Confidence		
High	Moderate	
		Tropical Cyclone Formation: Development of a tropical cyclone (tropical depression - TD, or greater strength).
		Above-average rainfall: Weekly total rainfall in the upper third of the historical range.
		Below-average rainfall: Weekly total rainfall in the lower third of the historical range.
		Above-normal temperatures: 7-day mean temperatures in the upper third of the historical range.
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Product is updated once per week, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



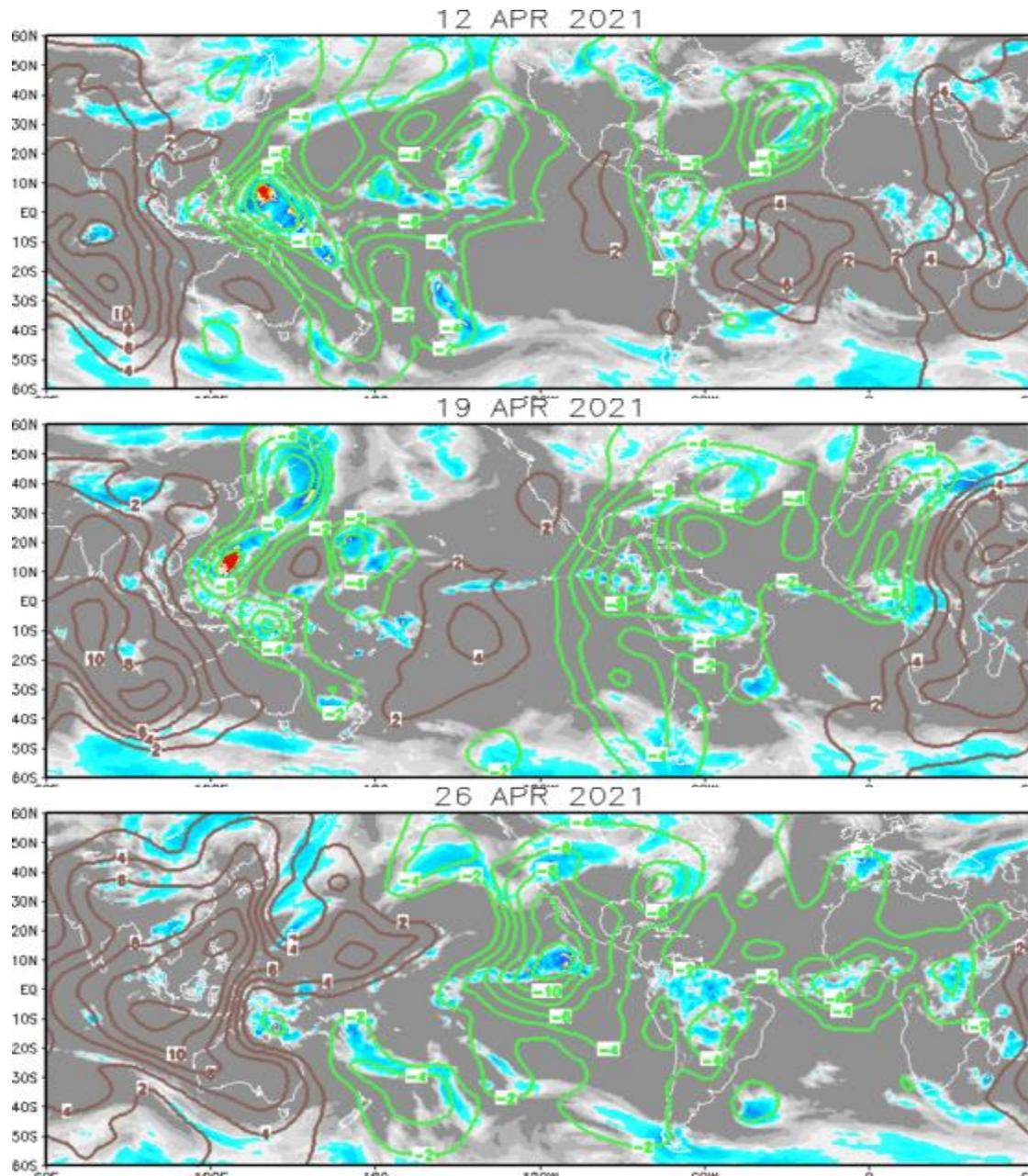
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence

Brown: Enhanced Convergence

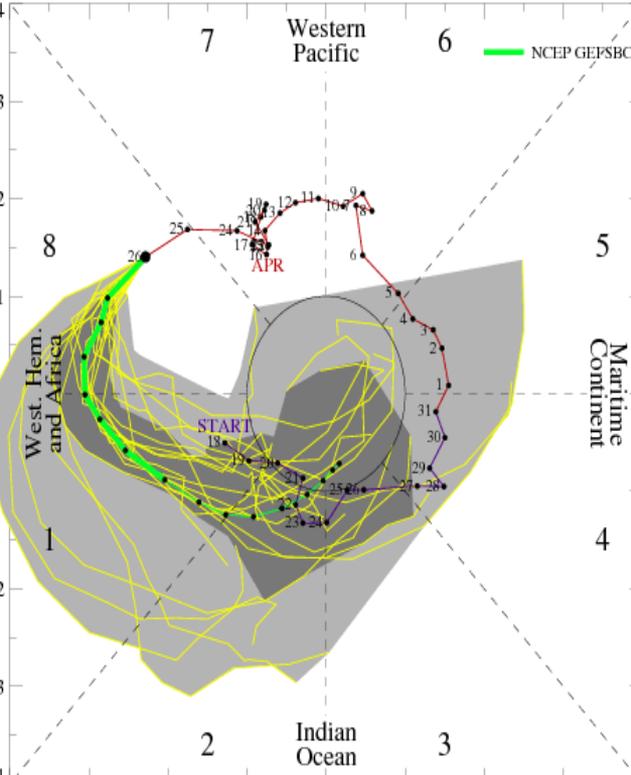
The large-scale Wave-1 pattern is interrupted by tropical cyclone activity in the West Pacific.

A Wave-1 pattern reemerged in the past few days.

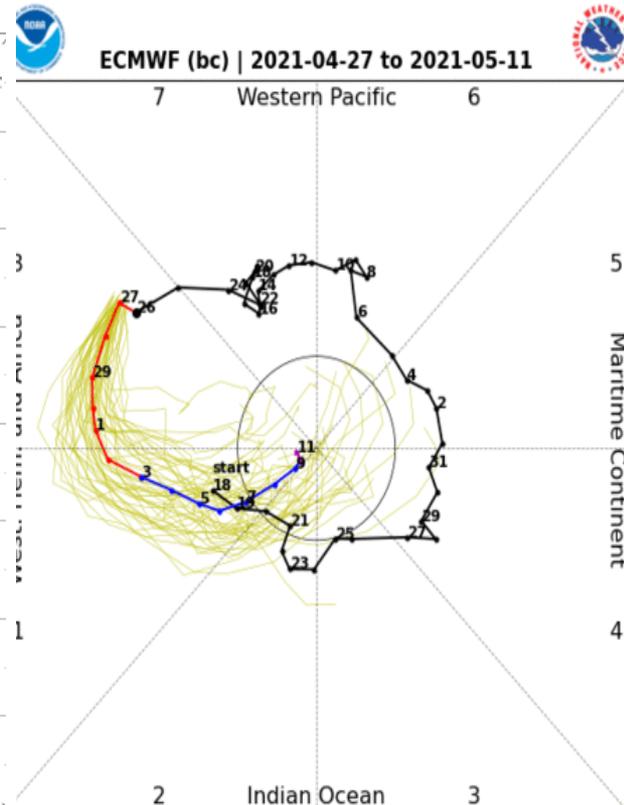


MJO Observation/Forecast

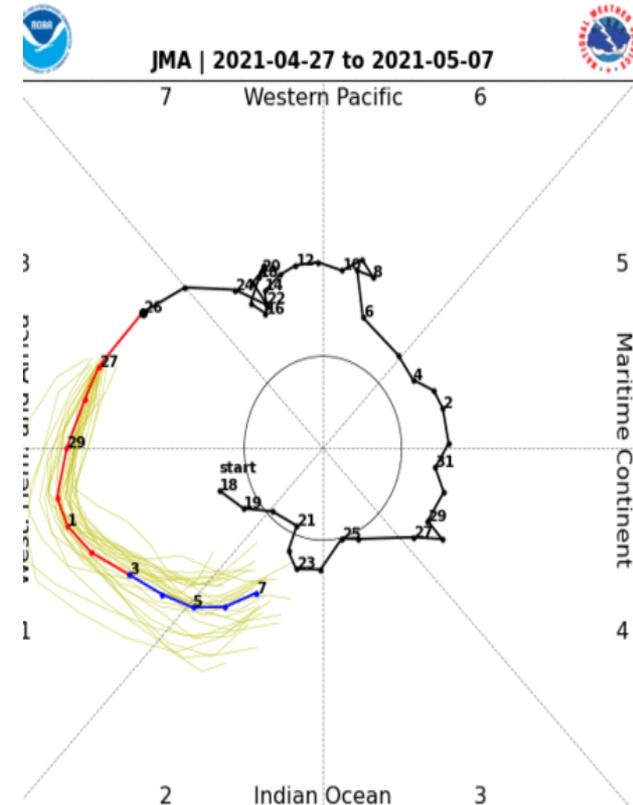
[RMM1, RMM2] forecast for Apr-27-2021 to May-11-2021



GEFS



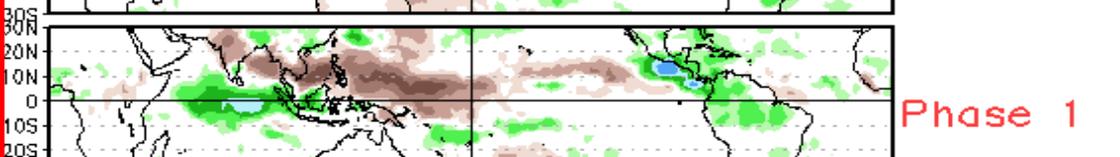
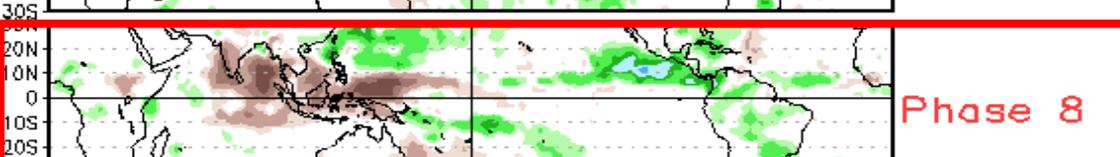
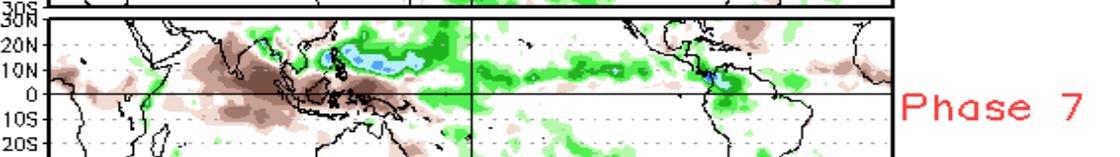
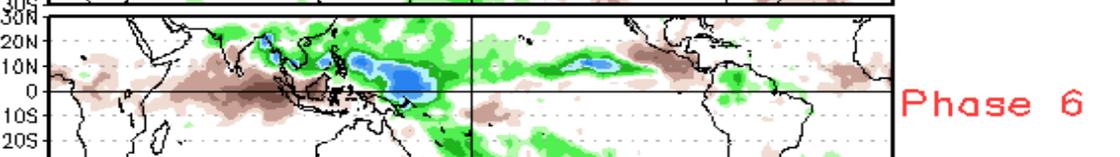
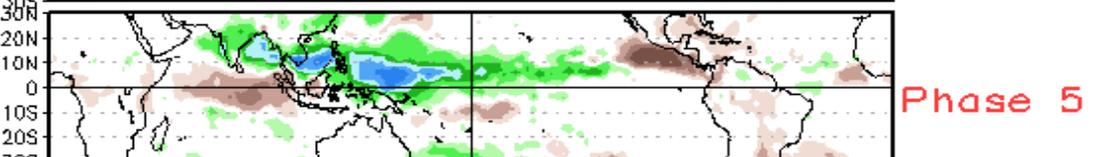
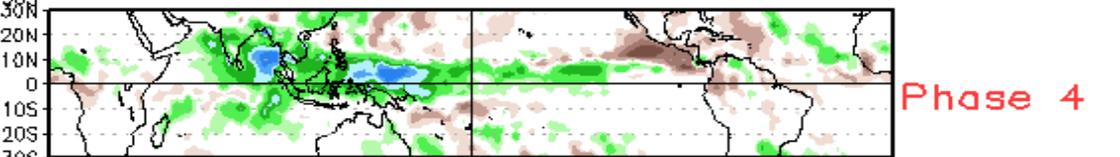
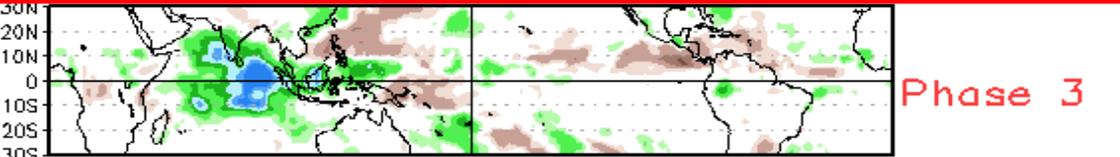
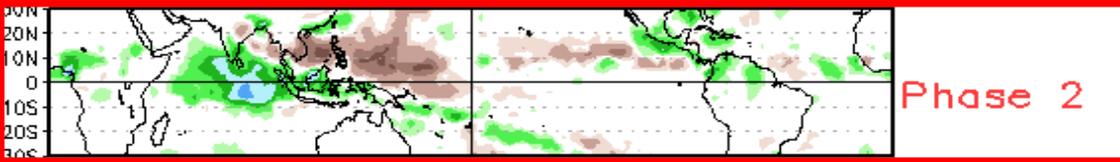
ECMWF



JMA

Good agreement among dynamical models for the MJO to shift from phases 8 to 2 during the next two weeks.

Average Conditions when the MJO is present

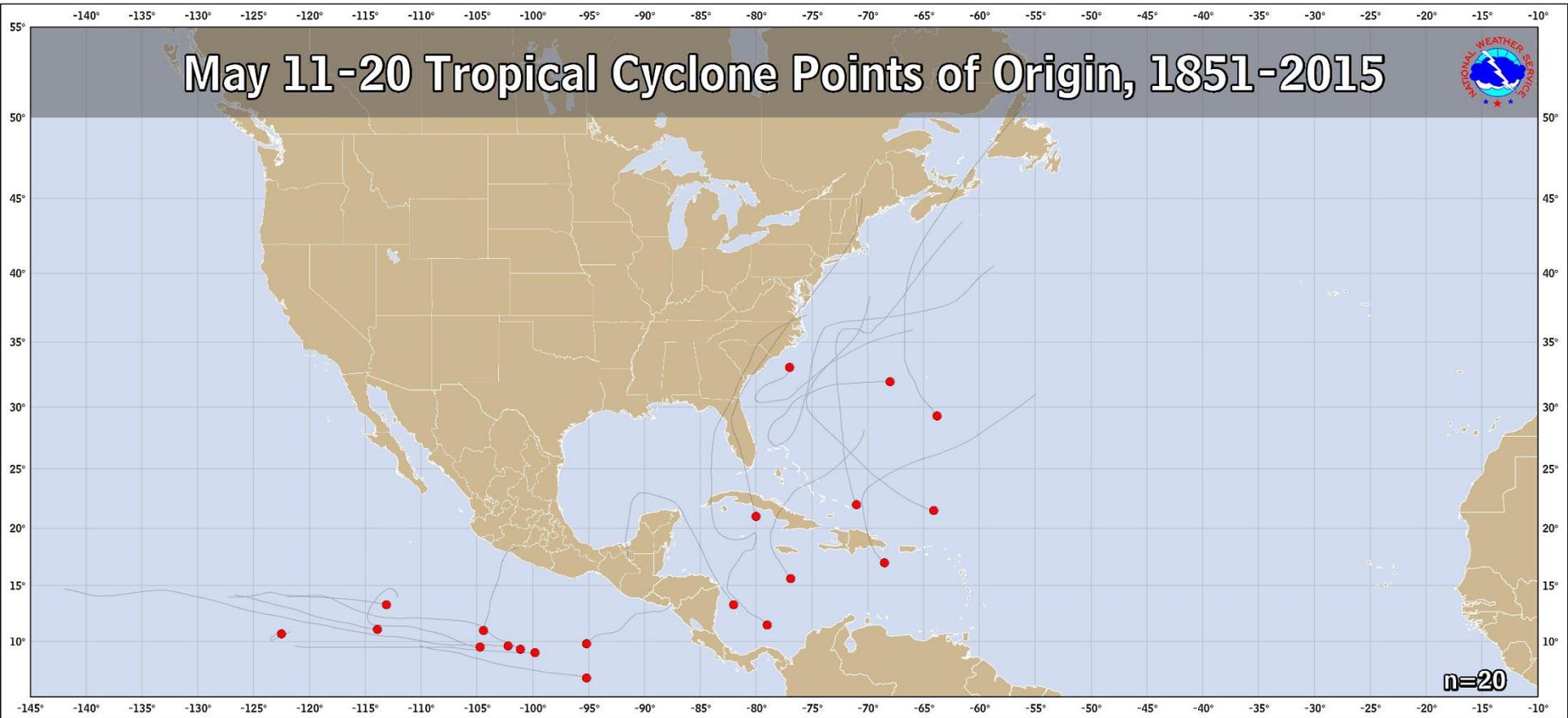


CAVEAT: These panels are representative of robust MJO events.

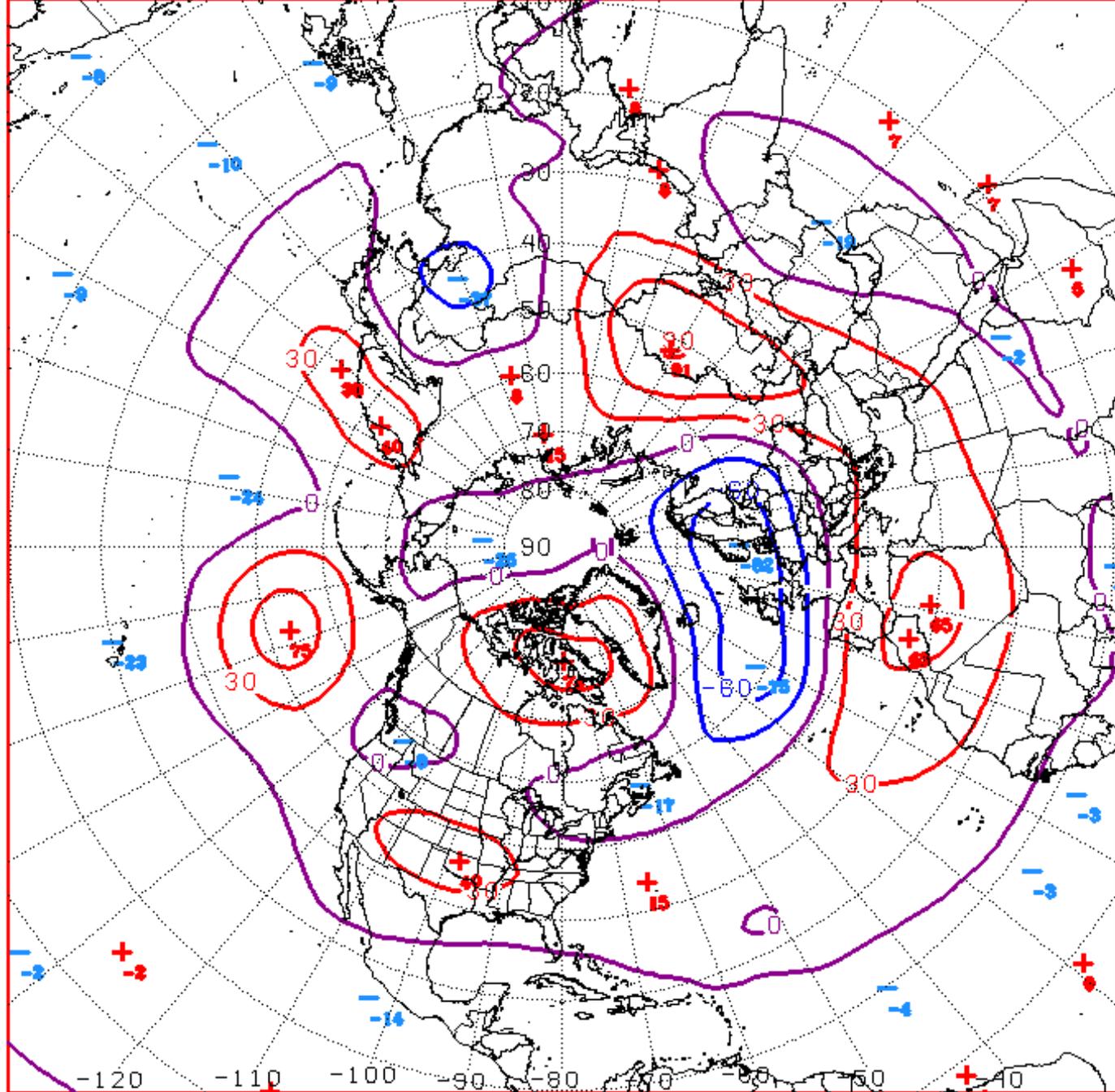
May 11-20 Tropical Cyclone Points of Origin, 1851-2015



n=20

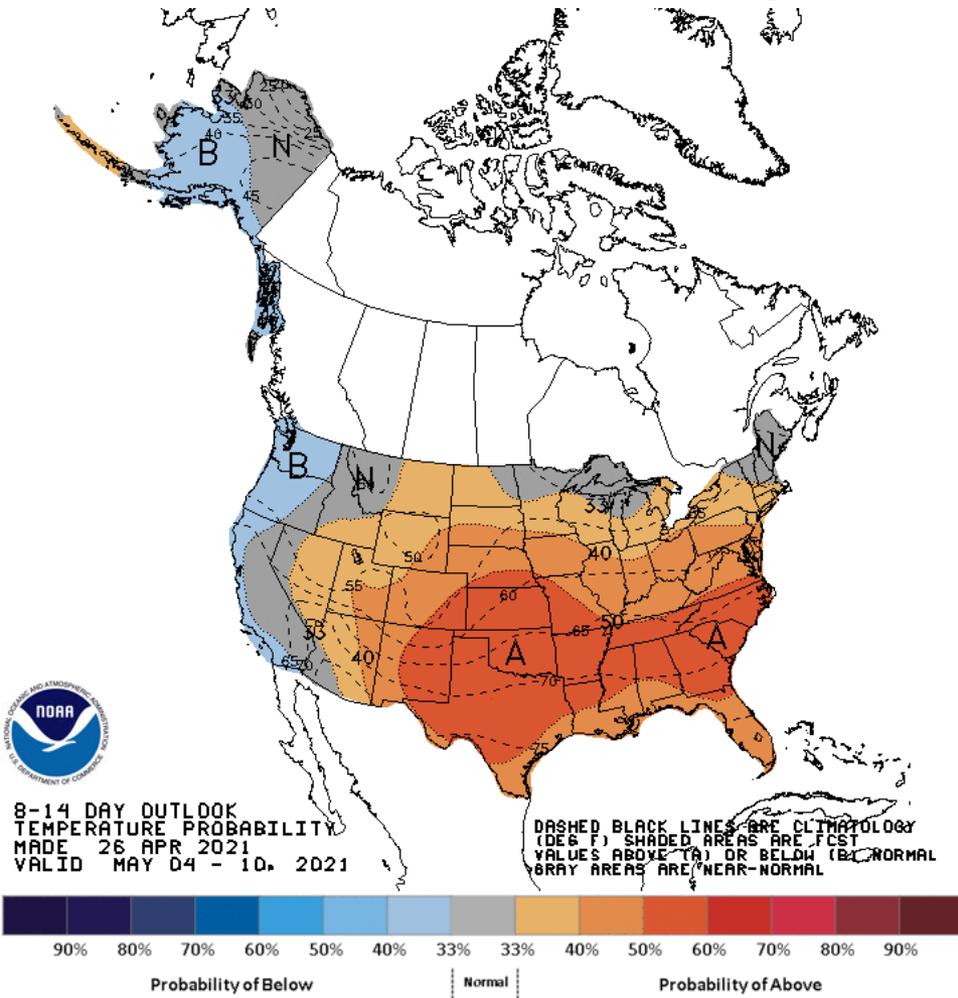


Connections to U.S. Impacts

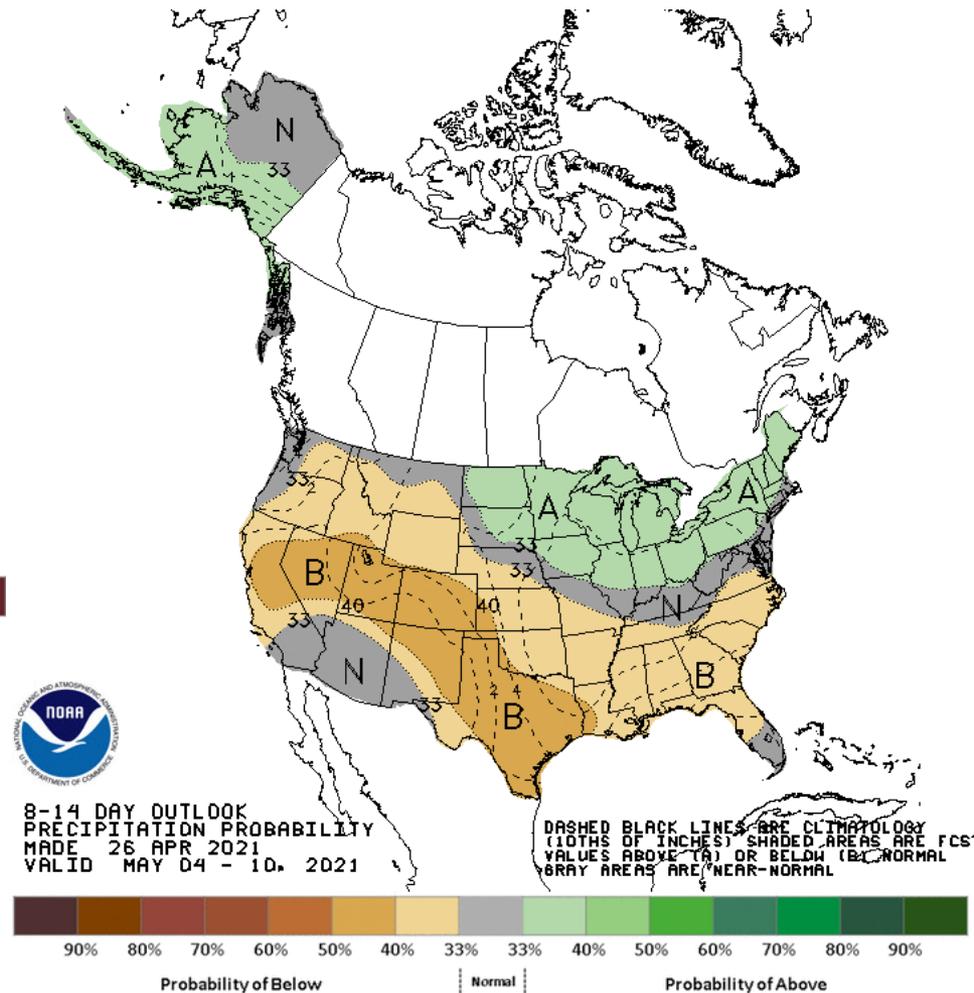


D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE APR 27 2021 1408 UTC CNTD MAY 08 2021

Week 2 – Temperature and Precipitation



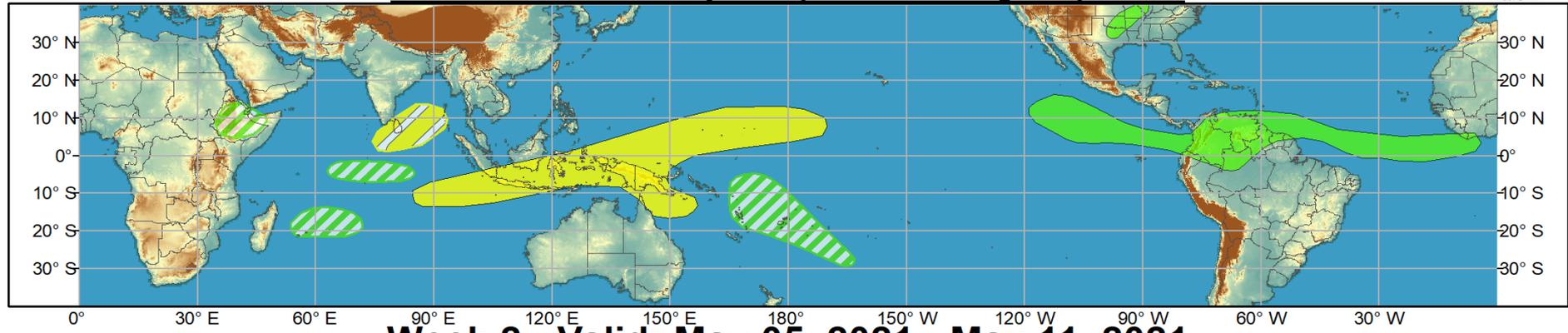
Amplified troughing over the PacNW is consistent with MJO composites



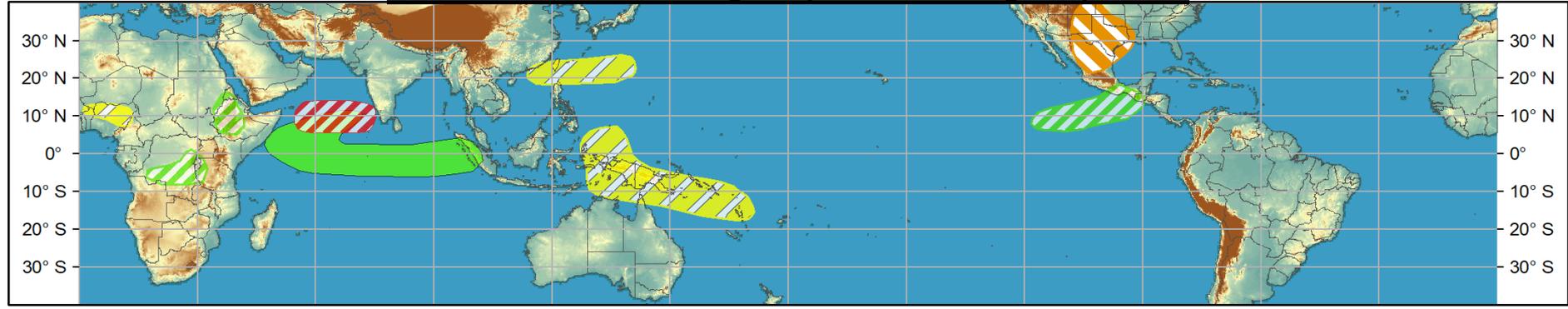


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